CLAIMS

What is claimed is:

1.  A computer method for analyzing spoken utterances comprising common language words in a speech-enabled environment, comprising the steps of:

    5    defining a grammatic specification suitable for processing the spoken utterances based on a domain model for a speech-enabled application;

    processing a recognition message, based on one of the spoken utterances recognized by a speech engine, to produce an initial semantic representation of the recognized spoken utterance based on the grammatic

    10   specification and the domain model; and

    providing a set of propositions that represent the recognized spoken utterance, the set of propositions based on the initial semantic representation and the domain model.

2.  The computer method of Claim 1, wherein the step of defining a grammatic

    15   specification comprises the steps of:

    receiving an ontological description of the domain model based on entities, classes, and attributes;

    receiving syntax templates for the domain model specifying legal word sequences based on the ontological description; and

    20   combining the ontological description, lexicon, and the syntax templates to generate the grammatic specification.

3.  The computer method of Claim 2, wherein the domain model comprises a lexicon of words associated with the speech-enabled application, the lexicon providing synonyms and parts of speech information for elements of the

ontological description, and wherein the grammatic specification is based on the lexicon.

4. The computer method of Claim 1, wherein the domain model comprises an ontological description based on entities, classes, and attributes.

5. The computer method of Claim 1, wherein the domain model comprises a syntax specification and the grammatic specification is based on the syntax specification.

6. The computer method of Claim 1, wherein the grammatic specification is a Backus Naur Form grammar.

7. The computer method of Claim 1, wherein the initial semantic representation is based on a frame structure representing the recognized spoken utterance.

8. A system for analyzing spoken utterances comprising common language words, comprising:

a syntax manager for defining a grammatic specification suitable for processing the spoken utterances recognized by a speech engine based on a domain model for a speech-enabled application; and

a semantics analysis module for processing a recognition message based on one of the spoken utterances recognized by a speech engine to produce an initial semantic representation of the recognized spoken utterance based on the grammatic specification and the domain model; and the semantic analysis module providing a set of propositions that represent the recognized spoken utterance, the set of propositions based on the initial semantic representation and the domain model.

9. The system of Claim 8, wherein the syntax manager receives an ontological description of the domain model based on entities, classes, and attributes; and receives syntax templates for the domain model specifying legal word sequences based on the ontological description; and wherein the syntax manager combines the ontological description and the syntax templates to generate the grammatic specification.

10. The system of Claim 9, wherein the domain model comprises a lexicon of words associated with the speech-enabled application, the lexicon providing synonyms and parts of speech information for elements of the ontological description, and wherein the grammatic specification is based on the lexicon.

11. The system of Claim 8, wherein the domain model comprises an ontological data structure based on entities, classes, and attributes.

12. The system of Claim 8, wherein the domain model comprises a syntax specification and the grammatic specification is based on the syntax specification.

13. The system of Claim 8, wherein the grammatic specification is a Backus Naur Form grammar.

14. The system of Claim 8, wherein the initial semantic representation is based on a frame structure representing the recognized spoken utterance.

15. A computer program product comprising:

a computer usable medium for analyzing spoken utterances comprising common language words in a speech-enabled environment; and

a set of computer program instructions embodied on the computer

useable medium, including instructions to:

define a grammatic specification suitable for processing the

spoken utterances based on a domain model for a speech-enabled

5  application;

process a recognition message, based on one of the spoken

utterances recognized by a speech engine, to produce an initial

semantic representation of the recognized spoken utterance based on

the grammatic specification and the domain model; and

10  provide a set of propositions that represent the recognized spoken

utterance, the set of propositions based on the initial semantic

representation and the domain model.

16.  The computer program product of Claim 15, wherein the step of defining a

15  grammatic specification comprises the steps of:

receiving an ontological description of the domain model based on

entities, classes, and attributes;

receiving syntax templates for the domain model specifying legal word

sequences based on the ontological description; and

20  combining the ontological description, lexicon, and the syntax

templates to generate the grammatic specification.

17.  The computer program product of Claim 16, wherein the domain model

comprises a lexicon of words associated with the speech-enabled

application, the lexicon providing synonyms and parts of speech

25  information for elements of the ontological description of the domain

model, and wherein the grammatic specification is based on the lexicon.

18.   The computer program product of Claim 15, wherein the domain model comprises an ontological data structure based on entities, classes, and attributes.

19.   The computer program product of Claim 15, wherein the domain model comprises a syntax specification and the grammatic specification is based on the syntax specification.

20.   The computer program product of Claim 15, wherein the grammatic specification is a Backus Naur Form grammar.

21.   The computer program product of Claim 15, wherein the initial semantic representation is based on a frame structure representing the recognized spoken utterance.

22.   A system for analyzing spoken utterances comprising common language words in a speech-enabled environment, comprising:

     means for defining a grammatic specification suitable for processing the spoken utterances based on a domain model for a speech-enabled application;

     means for processing a recognition message, based on one of the spoken utterances recognized by a speech engine, to produce an initial semantic representation of the recognized spoken utterance based on the grammatic specification and the domain model; and

     means for providing a set of propositions that represent the recognized spoken utterance, the set of propositions based on the initial semantic representation and the domain model.

23.  A computer program propagated signal product comprising:

a computer usable propagated medium for analyzing spoken utterances comprising common language words in a speech-enabled environment; and

a set of computer program instructions embodied on the computer usable propagated medium, including instructions to:

define a grammatic specification suitable for processing the spoken utterances based on a domain model for a speech-enabled application;

process a recognition message, based on one of the spoken utterances recognized by a speech engine, to produce an initial semantic representation of the recognized spoken utterance based on the grammatic specification and the domain model; and

provide a set of propositions that represent the recognized spoken utterance, the set of propositions based on the initial semantic representation and the domain model.